# AN EMPIRICAL STUDY ON THE EFFECT OF INDIVIDUAL FACTORS ON TACIT KNOWLEDGE SHARING IN THE ICT SECTOR

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## ABSTRACT

*The main focus of this study is to examine the direct relationship between individual factors and tacit knowledge sharing. A total of 400 questionnaires were distributed to the technical staff of ICT sector in Jordan. Out of 400, only 365 were usable for further analysis, representing a response rate of 92.75%. Hypotheses for direct effect were tested using multiple regression analyses. Factors such as individual attitude, organizational commitment, knowledge self-efficacy, were found positively related to tacit knowledge sharing.*

**Keywords:** Tacit knowledge sharing; individual attitude; organizational commitment; knowledge self- efficacy.

## 1. INTRODUCTION

In present days, the economy depends mainly on knowledge, and for that reason today's economy is known as the knowledge economy or "k-economy" (Sunassee & Sewry 2003; Halawi, Aronson et al. 2005). K-economy is characterized by rapid development, does not depend on traditional capital assets, and it is dynamic. (Hijazi, 2005). Knowledge economy is shared worldwide (Civi, 2000). This is because the importance of knowledge as an intangible asset for an organization is more important than tangible assets such as land, equipments, capital (Civi 2000; Zaim, Tatoglu et al. 2007). As such, it is imperative for organizations to focus on investment in knowledge resources or intellectual capital (e.g. experience, skills, capabilities, patents) (Wei, Choy et al. 2009) in order to compete effectively in today's economic condition.

## 2. BACKGROUND OF THE STUDY

There is a lot of effort being spent toward successful knowledge management (KM) initiatives in Jordanian organizations, and to the establishment of many of Jordanian projects that represent the application of knowledge management. The importance placed on KM is further emphasized when it becomes one of the evaluation citeria for the "King Abdullah II award for excellence for the private sector" which was created in 1999. Due to this factor, organizations in Jordan also make an effort to Furthermore, researches in the field of knowledge sharing are scarce in Middle Eastern cultures (Seba, Rowley, & Lambert, 2012), and in developing country (Boumarafi & Jabnoun, 2008; Eftekharzadeh, 2008). Jordan as one of the developing countries faces the same dilemma in this field (Hijazi, 2005).

There are also different opinions regarding tacit knowledge definition and characteristics (Haldin-Herrgard 2000; McAdam, Mason et al. 2007). Nevertheless, there is a general agreement in the literatures that tacit knowledge is difficult to share (Nonaka and Takeuchi 1995; Leonard and Sensiper 1998; Nonaka and Konno 1998; Zack 1999; Haldin-Herrgard 2000; Wasonga and Murphy 2006; McAdam, Mason et al. 2007), and difficult to express (Wagner 1987; Nonaka and Konno 1998; Lubit 2001; Wasonga and Murphy 2006; McAdam, Mason et al. 2007). Additionally, Wang and Noe (2010) have indicated the need for thorough studies in the field of knowledge sharing.

The lack of tacit knowledge sharing has many ramifications on organizations. Among these ramifications is that, it is leading to the cause of the brain drain problem (Eftekharzadaeh, 2008). According to Eftekharzadaeh (2008) and Hlidreth (1999) the lack of tacit knowledge sharing leads to the loss of organizations' "intellectual capital" which takes place by losing the knowledge when the individuals leaves the organization. Therefore, effective knowledge sharing provides solutions to the "brain drain" problem and maintains the intellectual capital of an organization (Awad & Ghaziri, 2004; Eftekharzadaeh, 2008; Grandan & Grandan, 2003). In addition, according to McAdam et al. (2007) the sharing of tacit knowledge contribute to solving the problem of "reinventing the wheel" which takes place when one of the employees leaves the organization (McAdam, Mason et al. 2007).

In essence, the importance of tacit knowledge is not yet fully understood and not well taken into account compared to the importance of explicit knowledge (Davenport and Prusak 1998; Zack 1999). Obviously, there is an agreement in the literatures that sharing of tacit knowledge is more difficult than explicit knowledge (McAdam, Mason et al. 2007). However, studies that investigated the tacit knowledge sharing is quite limited in numbers. Among the most important studies are those byLin and Lee (2006), and Lin (2007b) and McAdam, Mason et al. (2007). Most other studies studied knowledge sharing in general. For example, the study by Wang and Noe (2010), Constant et al. (1994), Jarvenpaa and Staples, (2000), Bock et al., (2005), Wasko and Faraj (2005), Kankanhalli et al. (2005), and Kuo and Young (2008).

## 3. RESEARCH FRAMEWORK

The research framework of this study depends on social capital theory. Social capital is described as the social company's characteristics like social networks, values, norms and interpersonal trust that help in the coordination and collaboration activities to bring about joint advantage. Besides, relationship among individuals can create and leverage the social capital. In a nutshell, interactions create relationships and relationships are the residing place for social capital.

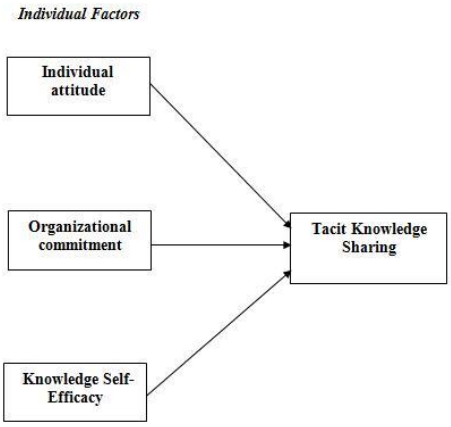


**Figure 1:** Research Framework

## 4. RESEARCH METHODOLOGY

### 4.1 SAMPLE AND DATA COLLECTION

Data for this study was collected through questionnaire. A total of 400 questionnaires were distributed between June 27th 2011 and 3rdSeptember 2011. Respondents were given a week to complete the questionnaire. At the end of the survey period, a total of 375 were returned. Out of 375 questionnaires, ten cases were deleted with four were due to missing data and six were deleted due to outliers. Therefore, data from 365participants are potentially available for analysis, yielding a return rate of 92.75 percent.

### 4.2 STATISTICAL ANALYSIS

Data collected for this study were analyzed using the SPSS (version 15.0) program for Windows. Prior to the primary analyses, the data were examined for data entry accuracy, outliers, and distributional properties. Outliers were detected using both z-scores (with a cut-off point of $\pm 3SD$) and Mahalanobis distance (a cut-off point of .001).Data screening was performed to identify data entry errors and examine how appropriately data meets the statistical assumption which involves descriptive statistics of variables, missing data, and treatment of outlier response bias, normality, homoscedasticity, multicollinearity and reliability.Several statistical techniques such as descriptive statistics, factor analysis, correlation analysis and regression analysis were also conducted.

# 5. RESULTS

## 5.1 FACTOR ANALYSIS

### 5.1.1 TACIT KNOWLEDGE SHARING

Table 1 shows the factor analysis result for tacit knowledge sharing. As shown in the table, the Eigenvalues is 3.487and the Kaiser Meyer-Olkin (KMO) value is .830. All value items have loading value more than 0.5. Hence, a factor solution which explained 69.74% of variance was derived.

**Table1:** Factor Analysis for Tacit Knowledge Sharing

| | | **Loading** |
|---|---|---|
| I share my job experience with my co-workers. | TKS1 | ***.847*** |
| I share my expertise at the request of my co-workers. | TKS2 | ***.871*** |
| I share my ideas about jobs with my co-workers. | TKS3 | ***.799*** |
| I talk about my tips on jobs with my co-workers. | TKS4 | ***.813*** |
| I often provide my personal working experience and knowledge to our team members. | TKS5 | ***.844*** |
| KMO | | .830 |
| Eigenvalues Value | | 3.487 |
| Total Variance | | 69.74% |

### 5.1.2 INDIVIDUAL FACTOR

Table 2 shows the result of the factor analysis for all individual factors items. In this study, the exploratory factor analysis was employed to test measures of psychological constructs. Based on the exploratory factor analysis, the individual factors were found to be three-dimensional construct. The results indicate three factor solutions with Eigenvalues greater than 1.0 and the total variance explained is 68.97%. KMO measure of sampling adequacy is 0.735. Indicating sufficient inter-correlations while the Barlet Test of Sphericity was significant (Chi square= 4351.260, p<.001). Bartlett's test of sphericity indicates whether correlation matrix is an identity matrix, which would indicate that variables are unrelated. The chi-Square significant level was less than .01. The factor analysis has been conducted based on Igbaria et al. (1995) procedures that each item should load 0.5 or greater on one factor and 0.35 on other factor.